Book

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
State Office Building
Cheyenne, Wyoming 82002

PROJECT: City of Casper, Sanitary Sewer Extension, Casper Community College, Casper, Wyoming

ARCHITECT OR ENGINEER: Worthington, Lenhart & Associates, Casper, Wyoming, Submitted by Casper Board of Public Utilities, 136 W. 8th Street, Casper, Wyoming

WATER QUALITY DIVISION REFERENCE NUMBER: 74-51

REVIEWING ENGINEER: Robert H. Finther, P.E.

DATE OF REVIEW: July 18, 1974

ACTION: Construction Authorized contingent upon compliance with the comment set forth below.

COMMENTS:

Submit revision of "Regulations for Sanitary Sewers Construction" as set up by the Casper Board of Public Utilities to provide 1) an infiltration limitation of 500 gallons per inch per mile per day and 2) leakage tests including water or low pressure air testing.

RHF:bb
7-23-74

cc: Worthington, Lenhart and Associates, Casper, Wyoming
Casper-Natrona County Health Department, Casper, Wyoming

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REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
State Office Building
Cheyenne, Wyoming 82002

PROJECT: Brooks Water and Sewer District, Water Systems Improvements, Mountain View Subdivision, Natrona County, Wyoming

ARCHITECT OR ENGINEER: Sigma Engineering, Box 2354, Casper, Wyoming

WATER QUALITY DIVISION REFERENCE NUMBER: 74-52

REVIEWING ENGINEER: Robert H. Finther, P.E.

DATE OF REVIEW: August 1, 1974

ACTION: Reviewed for compliance with acceptable Sanitary Engineering standards. Please submit the necessary changes to obtain compliance with the comments set forth below.

COMMENTS:

1. Discharge the plant sanitary sewage and sink wastewater to a separate disposal system which is located and constructed in accordance with the enclosed bulletin entitled "Minimum Standards for Private Sewage Disposal Systems."

NOTE: Provide a 10 foot horizontal separation between the buried sanitary sewer and the finished water line.

2. Provide a minimum horizontal separation of 10 feet between the buried treated water supply to storage line and the "sludge waste line to lagoon" or carry the treated water line above and to one side of the sludge waste line to maintain a vertical separation of at least 18 inches between the bottom of the treated water line and the top of the sludge waste line.

3. Submit the basis of design for the treatment or disposal of the wash water and the waste sludge in the lagoons.

NOTE: Unless soil absorption is adequate in the lagoons, it appears that they will eventually overflow. Consideration might be given to returning some of this water to the flash mixer for reuse. Limitations on the quality of this wastewater when discharged to waterways are usually 30 parts per million of total dissolved solids, 1.0 part per million aluminum, 0.5 part per million chlorine and a pH of 6.5 to 8.5.

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
State Office Building
Cheyenne, Wyoming 82002

PROJECT: Brooks Water and Sewer

ARCHITECT OR ENGINEER: Sigma Engineering

WATER QUALITY DIVISION REFERENCE NUMBER: 74-52

REVIEWING ENGINEER: KHP

DATE OF REVIEW: 8-1-74

ACTION: Reviewed for compliance with acceptable Sanitary Engineering Standards.

COMMENTS:

4. Eliminate the 6 inch bi-pass to the river bank from the sludge waste line.

5. Protect the finished water against contamination by raw water through the connection provided for backflushing the intake with finished water. This may be accomplished by relocating the backflushing control valve on the 12 inch finished water feed line to a point above the raw water well and installing a 2 inch vacuum breaker at that elevation and immediately downstream from this control valve.

NOTE: The use of a combination air release valve and stop at the high point in the finished water line as shown on the plans will not provide adequate backsiphonage protection.

6. Protect the finished water against contamination at such locations as the filter surface washers, chlorinators, chemical mixing tanks, the waste sink, the laboratory sink, and any other locations where finished water is employed in connection with raw or partially treated water.

7. Provide a flash mixer immediately upstream from the floculators. The detention period should be not less than 30 seconds.

8. Provide for application of chlorine to the settled water prior to entering the filter.

9. Provide chlorinators which are capable of feeding at the rate of 100 pounds of chlorine per day.

10. Provide for stabilizing in the upright position all chlorine cylinders on hand whether empty, partially full, or full; whether in service or not in service.

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
State Office Building
Cheyenne, Wyoming 82002

PROJECT: Brooks Water and Sewer

ARCHITECT OR ENGINEER: Sigma Engineering

WATER QUALITY DIVISION REFERENCE NUMBER: 74-52

REVIEWING ENGINEER: RMP

DATE OF REVIEW: 8-1-74

ACTION: Reviewed for compliance with acceptable Sanitary Engineering Standards.

COMMENTS:

11. It is recommended that an activated carbon feeder, or at least space for an activated carbon feeder be provided.

12. Color code or properly mark all piping which is employed in the water treatment processes.

13. Submit a brochure or other description of the model AQ-150 Neptune Microfloc water treatment plant specified. It is recommended that the following available units of this water treatment plant be provided: 1) the coagulation control center, 2) the continuous monitoring of effluent turbidity and 3) alarm which sounds when there is a change in effluent quality.

14. Provide sampling taps for raw filtered and finished water.

15. Provide laboratory test equipment for determination of pH, turbidity, alkalinity, bacteriological quality and coagulation feed rates (jar test).

16. Provide a properly protected vent, overflow and drain for the clearwell.

17. Provide a properly protected vent and overflow for the raw water wet well.

18. Extend the pipe sleeve under the base of each low and high service pump up through the concrete pump base to a point at least one inch up into each pump motor base. Then grout each pump motor base into place in a water tight manner.

19. Specify that all plumbing shall be in compliance with the provisions of the National Plumbing Code ASA A40.8-1955 or other acceptable code.

NOTE: The S trap for the lavatory shown on Drawing # 730618 should be replaced by a P trap.

RMP:bb
8-1-74

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REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
State Office Building
Cheyenne, Wyoming 82002

PROJECT: [illegible] water district, water system improvements, Mountain View subdivision, Natrona County, Wyoming

ARCHITECT OR ENGINEER: [illegible] engineering, Inc., [illegible], Wyoming

WATER QUALITY DIVISION REFERENCE NUMBER: [illegible]

REVIEWING ENGINEER: Robert A. Fichter, P.E.

DATE OF REVIEW: August [illegible], 1978

ACTION: Construction [illegible] subject to compliance with the comments set forth below.

COMMENTS:

1. Disposal of plant sanitary waste. As per our telephone conversation of August 11, 1978, with the engineer, Mr. Robert Carpenter II, it is understood that the following construction will be accomplished to provide a proper disposal facility:

   a. The 4 inch sanitary sewer from the water plant to the septic tank will be increased in at least 2 inches of water tight concrete to a point at least 25 feet horizontally from the clearwell.

   b. A horizontal separation of at least 100 feet will be provided between the clearwell and the septic tank effluent disposal system.

   c. The disposal system will, also, be in compliance with requirements of the Casper-Natrona County Health Department.

2. Satisfactory as revised.

3. Satisfactory as revised.

4. Satisfactory as revised.

5. Satisfactory as revised. The Rotex vacuum breaker should be spring loaded.

6. Satisfactory as revised.

7. The manufacturer's representative has stated by letter of August [illegible], 1978 that the elbow and gate valve on the inlet line to each flocculator will provide the "flash mixing".

8. It is recommended that provision be made for the application of chlorine to the settled water prior to entering the filter.

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
State Office Building
Cheyenne, Wyoming 82002

PROJECT: Brooks Water and Sewer District

ARCHITECT OR ENGINEER: Sigma Engineering

WATER QUALITY DIVISION REFERENCE NUMBER: 74-528

REVIEWING ENGINEER: RLP

DATE OF REVIEW: 8-22-74

ACTION: Construction Authorized subject to compliance with the comments set forth below.

COMMENTS:

9. Satisfactory as revised by Addendum #1.

10. Satisfactory as revised by Addendum #1.

11. Satisfactory as stated in Engineers letter of August 9, 1974.

12. Satisfactory as stated in Addendum #1.

13. Brochure received.

14. Satisfactory as cited on Drawing #70617 with the exception that the locations of the filter effluent sampling valves should be designated as being upstream from the effluent control valves for each filter.

15. It is recommended that equipment, also, be obtained for determining bacteriological quality and coagulation feed rates (jar test).

16. Satisfactory as per detail submitted.

17. Satisfactory as per detail submitted.

18. Satisfactory as set forth on drawing #70618 with this exception: Grout only the pump motor bases into place on the concrete pump bases.

19. Satisfactory as stated in Addendum #1.
NOTE: S traps have been outlawed because they cannot be vented at the stack at a point above the fly in the trap.

RLP:kk
8-22-74

cc: Nix Anderson, Casper-Natrona County Health Department, Casper
Enclosure: 1 set of plans and specifications

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REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
State Office Building
Cheyenne, Wyoming 82002

PROJECT: Crooks Water and Sewer District, Water System Improvements, Mountain View Subdivision, Aurora County, Wyoming

ARCHITECT OR ENGINEER: Olpin Engineering, Box [illegible], Casper, Wyoming

WATER QUALITY DIVISION REFERENCE NUMBER: 74-52R

REVIEWING ENGINEER: Robert M. Finther, P.E.

DATE OF REVIEW: August 22, 1974

ACTION: Construction Authorized subject to compliance with the comments set forth below.

COMMENTS:

1. Disposal of plant sanitary waste. As per our telephone conversation of August 22, 1974, with the engineer, Mr. Robert Streeter II, it is understood that the following construction will be accomplished to provide a proper disposal facility:

   a. The 4 inch sanitary sewer from the water plant to the septic tank will be encased in at least 6 inches of water tight concrete to a point at least 20 feet horizontally from the clearwell.

   b. A horizontal separation of at least 100 feet will be provided between the clearwell and the septic tank effluent disposal system.

   c. The disposal system will, also, be in compliance with requirements of the Casper-Natrona County Health Department.

2. Satisfactory as revised.

3. Satisfactory as revised.

4. Satisfactory as revised.

5. Satisfactory as revised. The Febco vacuum breaker should be spring loaded.

6. Satisfactory as revised.

7. The manufacturer's representative has stated by letter of August 6, 1974 that the elbow and manual rate valve on the inlet line to each flocculator will provide the flash mixing.

8. It is recommended that provision be made for the application of chlorine to the settled water prior to entering the filter.

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
State Office Building
Cheyenne, Wyoming 82002

PROJECT: Town of Torrington - Eastside Lift Station and Pressure Line

ARCHITECT OR ENGINEER: J. T. Banner and Associates, Inc., [illegible] Street
Laramie, Wyoming 82070

WATER QUALITY DIVISION REFERENCE NUMBER: 74-33

REVIEWING ENGINEER: Frank E. Lauer, P.E.

DATE OF REVIEW: July 25, 1974

ACTION: Construction Authorized.

COMMENTS:

FEL:bb
7-29-74

cc: Malcolm Crawford, District Sanitarian, Gillette, Wyoming
Mayor [illegible], Town of Torrington, P. O. Box [illegible], Torrington, Wyoming

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
State Office Building
Cheyenne, Wyoming 82002

PROJECT: Exxon Oil Co. Highland Uranium Project Sewage Treatment Plant, Converse County, Wyoming

ARCHITECT OR ENGINEER: Harrison Western Corporation, Box 756, Casper, Wyoming, Attention Don Wagoner

WATER QUALITY DIVISION REFERENCE NUMBER: 74-54

REVIEWING ENGINEER: Robert H. Pinther, P.E.

DATE OF REVIEW: August 1, 1974

ACTION: Reviewed for compliance with acceptable Sanitary Engineering Standards. Please submit the necessary changes to obtain compliance with the comments set forth below.

COMMENTS:

1. Provide cleanouts at 50 foot intervals in the 4" clay tile sewer influent line to the sewage treatment plant.

2. To avoid erosion of the lagoon dike, provide a splash pad on the inside bank at the point when the sewage from the treatment plant discharges into the lagoon.

3. Carry the treated sewage delivery line high enough in the lagoon dike to prevent any possible back siphonage into the treatment plant from the lagoon.

4. Provide positive (mechanical) ventilation of the treatment plant housing.

5. Provide explosion proof electrical equipment in the sewage treatment plant building.

6. For maintenance purposes at the sewage treatment plant, provide water under pressure. The water outlet shall be protected against back siphonage by means of a vacuum breaker located beyond the last water control valve on the system.

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
State Office Building
Cheyenne, Wyoming 82002

PROJECT: Exxon Oil Company, Highland Uranium Project Sewage Treatment Plant, Converse County, Wyoming

ARCHITECT OR ENGINEER: Harrison Western Corporation

WATER QUALITY DIVISION REFERENCE NUMBER: 74-54

REVIEWING ENGINEER: RHP

DATE OF REVIEW: 8-1-74

ACTION: Reviewed for compliance with acceptable Sanitary Engineering Standards. Please submit the necessary changes to obtain compliance with the comments set forth below.

COMMENTS:

7. Provide an access platform on the perifory of the sewage treatment unit as well as across the top of the unit.

8. Provide a lock for the treatment building access manhole.

9. If a discharge of sewage to the surface ever occurs the effluent shall discharge to an established drainage course and shall have an analysis of no greater than the following:

30 parts per million suspended solids
30 parts per million BOD
200 coliform organisms per 100 milliliters
0.5 parts per million residual chlorine.

RHP:bb

cc: Malcolm Crawford, District Sanitarian, Gillette, Wyoming
Kearby Cotter, Case/Cotter Inc., 6625 East 49th Avenue, Commerce City, Colorado 80022

Book

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
State Office Building
Cheyenne, Wyoming 82002

PROJECT: Exxon Oil Company Highland Uranium Project Sewage Treatment Plant, Converse County, Wyoming

ARCHITECT OR ENGINEER: Harrison Eastern Corp., Box 728, Casper, Wyoming, Attention Don Wagoner

WATER QUALITY DIVISION REFERENCE NUMBER: 74-94

REVIEWING ENGINEER: Robert R. Pinther, P.E.

DATE OF REVIEW: August 22, 1974

ACTION: Reviewed for compliance with acceptable Sanitary Engineering Standards. Please submit the necessary changes to obtain compliance with the comments set forth below.

COMMENTS:

1. Provide explosion proof electrical equipment in the sewage treatment plant building.

2. Carry the treated sewage delivery line high enough in the lagoon dike to prevent any possible back siphonage into the treatment plant from the lagoon. NOTE: It cannot be determined from the plan as to whether compliance has been provided on this item.

3. Submit the results of percolation tests or other basis on which the size of the lagoon is designed.

4. If a discharge of sewage to the surface ever occurs the effluent shall discharge to an established drainage course and shall have an analysis of no greater than the following:

30 parts per million suspended solids
30 parts per million BOD
200 coliform organisms per 100 milliliters
0.5 parts per million residual chlorine

RRP:bb
8-23-74

cc: Malcolm Crawford, District Sanitarian, Gillette, Wyoming
Kearby Cotter, Case/Cotter Inc., 6625 East 60th Avenue, Commerce City, Colorado 80022

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
State Office Building
Cheyenne, Wyoming 82002

PROJECT: Exxon Oil Company Highland Uranium Project Sewage Treatment Plant Converse County, Wyoming

ARCHITECT OR ENGINEER: Harrison Western Corp. Box 756, Casper, Wyoming
ATTENTION Don Wagoner

WATER QUALITY DIVISION REFERENCE NUMBER: 74-54RR

REVIEWING ENGINEER: Robert H. Pinther, P.E.

DATE OF REVIEW: Sept. 13, 1974

ACTION: Construction Authorized subject to compliance with the comments set forth below.

COMMENTS:

1. Carry the treated sewage delivery line high enough in the lagoon dike to prevent any possible back siphonage into the treatment plant from the lagoon.

2. If a discharge of sewage to the surface ever occurs, the effluent shall discharge to an established drainage course and shall have an analysis of no greater than the following:

30 parts per million suspended solids
30 parts per million BOD
200 coliform organisms per 100 milliliters
0.5 parts per million residual chlorine

RHP:bb
9-16-74
Enclosure: 1 set of plans and specifications

cc: Malcolm Crawford, District Sanitarian, Gillette, Wyoming
Kearby Cotter, Case/Cotter Inc., 6675 East 49th Avenue, Commerce City, Colorado

Ed Herschler
Governor

State Office Building West

Telephone (307) 777-7781

January 24, 1975

Mr. H. E. Hopewell
Project Manager
Harrison Western Corp.
P. O. Box 756
Casper, Wyoming 82601

Dear Mr. Hopewell:

Re: Inspection of Sewage Treatment Plant, Exxon Highland Uranium Project, Converse County
Water Quality Division Ref. #74-54 KR

An inspection of the above referenced facility on January 6, 1975 by the writer in company with your Mr. Don Wagoner revealed that this facility was for the most part, constructed in accordance with the plans for which construction was authorized.

However, certain defects and/or omissions as set forth below were noted during our visit.

1. A baffled chlorine contact tank to provide thorough mixing and minimum contact period of 15 minutes at peak hourly flow was not provided.

2. A residual chlorine test kit was not provided.

3. The vacuum breaker on the fresh water line to the plant was not located beyond the last control valve.

4. The plant discharge lift pump appeared to be cycling excessively.

If we can be of further assistance in this at this time, please feel free to let us know.

Sincerely,

Robert H. Pinther, P.E.
Environmental Engineer
Water Quality Division

RHP:jk
cc: Mr. Frank C. Larvie, Exxon Co., USA, Highland Uranium Operations, Casper.

HC-402

BHP

1208 QUAIL STREET · DENVER, COLORADO 80215 · TELEPHONE: AC 303-238-1223

HARRISON WESTERN CORPORATION Contractors • Engineers

EXXON HIGHLAND UNDERGROUND
MINE PROJECT
P. O. BOX 756
CASPER, WYOMING 82601

PHONE 307-235-3562

November 21, 1974

Mr. Frank C. Larvie
Exxon Company, U.S.A.
Highland Uranium Operations
Post Office Box 3020
Casper, Wyoming 82601

RE: Inspection by District Sanitarian of Sewage Treatment Plant on December 9, 1974.

Dear Mr. Larvie:

I have contacted Mr. Malcolm Crawford, District Sanitarian, this date to arrange an inspection of the Sewage Treatment Plant. He has indicated that he will be in the Douglas area from December 9, 1974 through December 12, 1974 and will be able to inspect the Sewage Treatment Plant in the forenoon of December 9, 1974.

Sincerely yours,

HARRISON WESTERN CORPORATION

H. E. Hopewell
Project Manager

HEH/cew

cc: Mr. Robert H. Pinther
Wyo. Dept. of Environmental Quality

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
State Office Building
Cheyenne, Wyoming 82002

PROJECT: **Skyline Utilities Co., New Well, Water Main Extensions and Storage Tank to serve 85 residences, Teton County, Wyoming.**

ARCHITECT OR ENGINEER: **Charles J. Haver, Wheeler & Gray, 7462 N. Figueroa St., Los Angeles, California 90041.**

WATER QUALITY DIVISION REFERENCE NUMBER: **74-55**

REVIEWING ENGINEER: **Roy E. Prior and Paul C. Schwieger, P.E.**

DATE OF REVIEW: **September 25, 1974.**

ACTION: **Construction authorized contingent on compliance with comments.**

COMMENTS:

Ten States Standards were used as a reviewing criteria.

A. **All materials must be NSF approved.**

B. **Air Valve Installations**

1. **Stop and waste (drain) not permitted. Suggest that a curb stop would be adequate.**
2. **24" x 36" box is too small - box should be 36" x 36" minimum. There should be enough room to allow a workman to safely remove the union and air release valve.**
3. **Air release valve should be vented above the ground at least 12", with a screened downward-facing elbow.**

C. **Well**

1. **The use of a pitless adaptor is recommended. (NSF approved type)**
2. **If well pit is used the following must be complied with:**
   a. **Cover on well pit must be water tight.**
   b. **Cover must have lock to control access.**
   c. **Well pit must be 12" above ground level.**
   d. **Precast concrete manhole must be water tight.**

D. **Pump**

Pump must be sized to assure a minimum of 20 psi in all lines of the system and meeting the water demands of the system, ie, 85 families, 4/family, 100 GPD/person, 6 hour peak period, 100 GPM minimum size of pump. See recommendation.

E. **Distribution System**

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
State Office Building
Cheyenne, Wyoming 82002

PROJECT: **Skyline Utilities co., New Well, Water Main Extensions and Storage Tank to serve 85 residences, Teton County, Wyoming.**

ARCHITECT OR ENGINEER:

WATER QUALITY DIVISION REFERENCE NUMBER: **74-55**

REVIEWING ENGINEER:

DATE OF REVIEW: **September 25, 1974.**

ACTION:

COMMENTS:

1. **All dead-end mains should have a flushing hydrant.**
2. **Water should be chlorinated.**
3. **All lines should be disinfected before using.**
4. **Minimum 6' cover on all lines. See recommendation #2.**

Recommendation #1.

We suggest that consideration be given to the use of another system to supply the pressure for the system, ie, use the submersible pump to supply the volume and another pump and/or air compressor to supply the pressure.

Recommendation #2.

Lines for that part of State are subject to freezing. Consideration should be given to a greater cover depth, up to 8 feet.

REP:jk

cc: John C. Moyer, Teton County Subdivision Officer, P. O. Box 1727, Jackson 83001.
Phillip Hughes, District Sanitarian, P. O. Box 747, Rock Springs 82901.

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
State Office Building
Cheyenne, Wyoming 82002

PROJECT: Skyline Utilities Co., New Well, Water Main Extensions and Storage Tank to serve 85 residences, Teton County, Wyoming.

ARCHITECT OR ENGINEER: Charles J. Haver, Wheeler & Gray, 7462 N. Figueroa St., Los Angeles, California 90041.

WATER QUALITY DIVISION REFERENCE NUMBER: 74-55R

REVIEWING ENGINEER: Paul C. Schwieger, P.E. PCS

DATE OF REVIEW: December 4, 1974

ACTION: Authorized for construction.

COMMENTS:

Mass pitless adapter is approved.

PCS:jk
12-5-74

cc: John C. Moyer, Teton County Subdivision Officer, Jackson.
Phillip Hughes, District Sanitarian, Rock Springs.

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
State Office Building
Cheyenne, Wyoming 82002

PROJECT: City of Gillette - Dale Brown Sanitary Sewer Line

ARCHITECT OR ENGINEER: Global Engineering and Land Surveying,
Box 532, Casper, Wyoming 82601

WATER QUALITY DIVISION REFERENCE NUMBER: 74-56

REVIEWING ENGINEER: Frank R. Harman, P.E.

DATE OF REVIEW: August 21, 1974

ACTION: AUTHORIZED FOR CONSTRUCTION

COMMENTS:

FRH:bb
8-21-74

cc: Malcolm Crawford, District Sanitarian, Gillette, Wyoming
Mayor C. H. Davis, City of Gillette, P. O. Box 540, Gillette, Wyoming

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
State Office Building
Cheyenne, Wyoming 82002

PROJECT: **City of Gillette, Dale Brown Sanitary Sewer line - addition. Gillette, Wyoming**

ARCHITECT OR ENGINEER: **Global Engineering and Land Surveying, Box 532, Casper Wyoming**

WATER QUALITY DIVISION REFERENCE NUMBER: **74-56R**

REVIEWING ENGINEER: **Frank R. Harman, P.E.**

DATE OF REVIEW: **October 2, 1974**

ACTION: **CONSTRUCTION AUTHORIZED**

COMMENTS:

FRH:bb
10-2-74
cc: **Malcolm Crawford, District Sanitarian, Gillette, Wyoming**
Mayor C. H. Davis, P. O. Box 540, Gillette, Wyoming 82716

10 sets of plans returned to Global Engineering.

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
State Office Building
Cheyenne, Wyoming 82002

PROJECT: **City of Casper, Proposed Water Line Extension, Ardon Estates Subdivision Casper Country Club Road, Casper, Wyoming**

ARCHITECT OR ENGINEER: **Vincent J. Gronski, G & S Engineering Co. Inc., 136 South Wolcott St., Room 301, Casper, Wyoming**

WATER QUALITY DIVISION REFERENCE NUMBER: **74-57**

REVIEWING ENGINEER: **Robert H. Pinther, P.E.**

DATE OF REVIEW: **September 13, 1974**

ACTION: **Reviewed for compliance with Acceptable Sanitary Engineering Standards. Please submit the necessary information as requested below.**

COMMENTS:

1. Include in specifications such items as (1) care in storage, handling and laying of pipe to prevent the entrance of contamination, (2) trench to be kept dry during laying, (3) disinfection in accordance with one of the methods set forth in American Water Works Standards C601-68 (excerpt enclosed), etc., (4) a minimum 10 foot horizontal separation from any sewer or drain lines encountered.

2. Specify that the proposed blow-off at the end of the 6-inch distribution line shall terminate at least 2 feet above the high water mark of any ditch, stream, or body of water to which it discharges.

3. Specify a minimum depth of cover to prevent freezing. At least 6 feet is recommended.

4. All the specifications and other requirements of the Casper Board of Public Utilities must be met.

RHP:jk
Enclosure

cc: Nix Anderson, Casper-Natrona County Health Department, Casper.
Casper Board of Public Utilities, 136 West 8th Street, Casper.

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
State Office Building
Cheyenne, Wyoming 82002

PROJECT: Town of Wheatland, Booster Pump Station Water Distribution System Improvements, Wheatland, Wyoming

ARCHITECT OR ENGINEER: Environmental Engineers of Wyoming, Laramie, Wyoming

WATER QUALITY DIVISION REFERENCE NUMBER: 74-58

REVIEWING ENGINEER: Robert E. Pfuther, P.E.

DATE OF REVIEW: October 31, 1974

ACTION: Reviewed for compliance with acceptable Sanitary Engineering Standards. Please submit the necessary changes indicated below.

COMMENTS:

1. Submit satisfactory evidence that the plans have been prepared by an engineer who is registered to practice in Wyoming.

2. Provide an automatic low pressure pump cutoff device in the suction header at each pump. The cutoff pressure shall be at least 5 psi and sufficiently high to avoid the occurrance of a negative pressure at any point on the distribution system.

3. Provide a dependable means of removing water from the below ground chamber in which the pump supply header is located. An adequately sized gravity floor drain is recommended.

NOTE: The location of a pump supply header, which, under certain conditions, is subject to the development of a negative internal pressure, in a below ground chamber subject to flooding is not recommended.

4. Provide for disinfection of the system in accordance with AWWA Standard C601-68 prior to placing into service.

REP:bb
11-4-74

cc: Malcolm Crawford, District Sanitarian, Gillette, Wyoming
Town of Wheatland, Wheatland, Wyoming

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
State Office Building
Cheyenne, Wyoming 82002

PROJECT: **City of Cheyenne, Modification to existing wastewater treatment facilities.**

ARCHITECT OR ENGINEER: **J. T. Banner & Associates, P. O. Box 550, Laramie, Wyoming 82070.**

WATER QUALITY DIVISION REFERENCE NUMBER: **74-59**

REVIEWING ENGINEER: **Paul C. Schwieger, P.E.**

DATE OF REVIEW: **September 30, 1974**

ACTION: **Authorized for construction contingent upon comments below.**

COMMENTS:

A. **A chlorine detector shall be placed in the chlorine storage room as well as in the chlorinator room.**

B. **In addition to the gas mask available on the outside door to the chlorinator room, a gas mask shall be available on the door between the chlorine storage room and the chlorinator room.**

PCS:jk

Book

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
State Office Building
Cheyenne, Wyoming 82002

PROJECT: Town of Deaver, Proposed New Construction in Deaver Water Distribution System, Deaver, Wyoming

ARCHITECT OR ENGINEER: John S. Bereman, Engineering Associates, P. O. Box 1539, Cody, Wyoming 82414

WATER QUALITY DIVISION REFERENCE NUMBER: 74-60

REVIEWING ENGINEER: Robert H. Pinther, P.E.

DATE OF REVIEW: October 7, 1974

ACTION: Reviewed for compliance with acceptable Sanitary Engineering Standards. Please submit the necessary changes to comply with the comments set forth below.

COMMENTS:

1. Submit specifications or indicate on the plans what specifications are to be used.

2. Include the following in the specifications:

a. Provisions for protection to be provided at water and sewer main crossing (see the enclosure "8.4.3 Crossings"). NOTE: Contrary to the engineers letter of August 26, 1974, it appears that the proposed water mains cross the sewer mains at two locations and meet the sewer main at one location.

b. Information as to the procedure to be used for disinfection of water mains after completion of construction. NOTE: The specifications should direct the builder to the disinfection procedure to be used.

RHP:bb
10-8-74

cc: Bill George, District Sanitarian, Norland, Wyoming

Enclosure

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
State Office Building
Cheyenne, Wyoming 82002

PROJECT: Town of Deaver, Proposed New Construction in Deaver Water Distribution System, Deaver, Wyoming.

ARCHITECT OR ENGINEER: Engineering Associates, Cody, Wyoming.

WATER QUALITY DIVISION REFERENCE NUMBER: 74-60A

REVIEWING ENGINEER: Robert H. Pinther, P.E.

DATE OF REVIEW: November 15, 1974

ACTION: Construction Authorized

COMMENTS:

1. An approved procedure, "Disinfecting Water Mains AWWA Standard C601-68" has been attached to the plans.

2. One copy each of paragraphs 8.4.2 and 8.4.3 pertaining the approved location and construction of water and sewer mains for both "Parallel Installations" and "Crossings" have been attached to the plans.

RHP:jk
Enclosure: one copy of plans

cc: Town of Deaver
Bill George, District Sanitarian, Worland, Wyoming

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
State Office Building
Cheyenne, Wyoming 82002

PROJECT: Lower Warm Springs Development Water Distribution System, Dubois, Wyoming

ARCHITECT OR ENGINEER: Nelson, Haley, Patterson & Quirk, Engineering Consultants, Riverton, Wyoming

WATER QUALITY DIVISION REFERENCE NUMBER: 74-61

REVIEWING ENGINEER: Robert H. Pinther, P.E.

DATE OF REVIEW: October 21, 1974

*ACTION: Reviewed for compliance with acceptable Sanitary Engineering Standards. Construction is not authorized pending receipt of satisfactory compliance with the comments below.

COMMENTS:

1. Does bigest known flood water mark approach within 50 feet of the well or storage tank site?

2. Place the bottom of the ground level reservoir above maximum flood level, and, if practical, at or above normal ground level.

3. Place the bottom of the reservoir above the ground water table.

4. Submit detail of the well pump setting and seal at top of well casing. NOTE: The well casing shall extend at least 6 inches and preferably 12 inches above the well house floor. It also shall extend at least 1 inch up into the base of the pump motor housing. The latter shall be properly sealed to the well casing. Where grouting is used as a seal between the pump motor base and a pump pedestal, the grout shall terminate at least 1 inch below the top of the well casing.

5. Provide for a contact time of at least one hour between the chlorine and the well water prior to delivery of water to the first customer.

6. Extend the "weather-proof manhole", the "4" sereened vent opening and the "3" level control standpipe, all at the ground level reservoir, to points at least 24 inches above ground level.

*This is a partial review of these plans. Review will be completed upon receipt of revised copies of sheets 4 and 6 as per our phone conference of 10-21-74 with Mr. Jim Geres.

RHP:bb
10-24-74

Book

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
State Office Building
Cheyenne, Wyoming 82002

PROJECT: Lower Warm Springs Development Water Distribution System, Dubois, Wyoming

ARCHITECT OR ENGINEER: Nelson, Haley, Patterson and Quirk, 625 East Madison, Riverton, Wyoming 82501

WATER QUALITY DIVISION REFERENCE NUMBER: 74-61R

REVIEWING ENGINEER: Robert H. Pinther, P.E.

DATE OF REVIEW: November 14, 1974

ACTION: Construction is not authorized pending receipt of satisfactory compliance with the comments set forth below.

COMMENTS:

1. Submit details of the proposed well pump setting and casing seal. This shall be designed in conformance with the requirements set forth in our "Review of Plans and Specifications" No. 74-61 dated October 21, 1974.

2. Submit plans and specifications showing the construction changes to be made in order to obtain a contact time of at least one hour between the chlorine and the well water prior to delivery of the water to the first customer.

3. Provide a standby chlorinator or sufficient spare parts for the chlorinator to insure no interruption in the disinfection of the water prior to delivery to the consumers.

4. Provide a test kit for determination of residual chlorine in 0.1 to 0.3 parts per million intervals up to 2.0 parts per million.

5. Paragraph 5.14 of the specifications pertaining to minimum vertical and horizontal separation of water mains and sanitary sewers shall be applied to both "parallel installation" and "crossings" as set forth in paragraphs 8.4.2 and 8.4.3 of the "Ten State Standards".

NOTE: Show on the plans the vertical separations between water and sewer lines at crossings at all locations for which this information is available.

RHP:bb
11-15-74

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
State Office Building
Cheyenne, Wyoming 82002

PROJECT: Fleming Gorge Reservoir, Buckboard Crossing Recreation Complex
Sweetwater County, Wyoming

ARCHITECT OR ENGINEER: U.S. Forest Service, Paul F. Howard, P.E.
and Dale C. Armstrong, P.E.

WATER QUALITY DIVISION REFERENCE NUMBER: 74-42

REVIEWING ENGINEER: Paul C. Schwieger, P.E. PCS

DATE OF REVIEW: October 1st, 1974

ACTION: Preliminary Plan Review - Authorized to proceed with design plans

COMMENTS:

The intake structure should be maintained as deep as possible to reduce the algae load on the filters.

Water system shall be designed in accordance with "Ten State Standards".

PCS:bb
10-23-74

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
State Office Building
Cheyenne, Wyoming 82002

PROJECT: **City of Powell, Ingalls Street Sewer Extension to Hamilton Way Powell, Wyoming**

ARCHITECT OR ENGINEER: **R. E. Myrick, City Engineer, Powell, Wyoming**

WATER QUALITY DIVISION REFERENCE NUMBER: **74-63**

REVIEWING ENGINEER: **Robert H. Pinther, P.E.**

DATE OF REVIEW: **October 2, 1974**

ACTION: **CONSTRUCTION AUTHORIZED**

COMMENTS:

RHP:bb
10-2-74

cc: Bill George, District Sanitarian, Worland, Wyoming

Enclosures

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
State Office Building
Cheyenne, Wyoming 82002

PROJECT: **Town of Encampment, Chlorine Contact Basin for Municipal Water Supply, Encampment, Wyoming.**

ARCHITECT OR ENGINEER: **Herman Noe, J. T. Banner & Assoc. Inc., Laramie, Wyoming.**

WATER QUALITY DIVISION REFERENCE NUMBER: **74-64**

REVIEWING ENGINEER: **Paul C. Schwieger, P.E.** PCS

DATE OF REVIEW: **September 26, 1974**

ACTION: **Authorized for construction contingent upon compliance with comments below.**

COMMENTS:

A. **All pipe shall bear the NSF seal of approval.**

B. **Installation will be in accordance with "Ten States Standards".**

C. **The access hatch to the contact chamber should be designed with a rim extending above the roof slab and the cover overlapping the outside of the rim.**

D. **A note should be placed on the plans indicating the point where 20 PSI can be maintained under maximum flow conditions with no connection allowed above this point.**

E. **An elbow equipped with a rodent screen should be installed in lieu of the flap gate shown on the overflow structure.**

F. **The door to the chlorine room shall have a see through window, a gas mask box shall be located outside of the chlorine contact room and adequate safety instruction shall be provided in the event the ventilating system malfunctions.**

G. **We would suggest placing a floor drain in the chlorine chamber in place of the side drain shown on the plans to facilitate cleaning.**

H. **A manual of operation and maintenance should be provided.**

PCS:jk
9-26-74

State Office Building West Telephone (307) 777-7781

December 20, 1974

Mr. Herman Noe
J. T. Banner & Associates Inc.
P. O. Box 550
Laramie, Wyoming 82070

Dear Mr. Noe:

RE: Plans & specifications for Encampment Chlorine Contact Basin, DEQ reference #74-64.

Reference is made to our conference on December 16, 1974 at your office in Laramie regarding the above-referenced proposed facility.

We have set forth below specific changes which will be required to obtain compliance with comments "B" and "C" of our review of September 26, 1974 covering this project. Also, three (3) recommended changes and additions for this project are listed.

Required changes:

(1) Eliminate the means by which the chlorine contact chamber can be completely by-passed.

NOTE: As per our discussion, this might be accomplished by dividing the chamber into two (2) equally sized chambers and providing the necessary piping to allow operation of one chamber while the other is being cleaned or repaired.

(2) The cover for each access hatch on the contact chamber shall extend both horizontally outward beyond the vertical collar and vertically downward at least two (2) inches around the outside of the collar.

Recommended changes:

(1) Provide means for introducing chlorine at the inlet to the second half of the contact chamber.

(2) Fence and slope the raw water ditch banks to prevent encrouchment by cattle and the entrance of surface run-off.

(3) Provide a standby chlorination. This should be done as soon as possible to avoid interruption in the disinfection process during repair or maintenance of the chlorinator.

Please let us know if we can be of further assistance in this regard.

Sincerely,

Robert H. Pinther, P.E.
Environmental Engineer
Water Quality Division
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

RHP:bb

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
State Office Building
Cheyenne, Wyoming 82002

PROJECT: **Cottonwood Water Users Association Water System, Green River, Wyoming**

ARCHITECT OR ENGINEER: **None indicated; submitted by R. Stephen Young, Green River, Wyoming.**

WATER QUALITY DIVISION REFERENCE NUMBER: **74-65**

REVIEWING ENGINEER: **Robert H. Pinther, P.E.**

DATE OF REVIEW: **October 30, 1974**

ACTION: **Reviewed for compliance with Acceptable Sanitary Engineering Standards. Construction not authorized pending compliance with the comments set forth below.**

COMMENTS:

1. Since Green River water, which is the source of this proposed water supply, requires complete treatment prior to use as potable water, minimum acceptable treatment for this supply consists of coagulation, sedimentation, filtration, chlorination and storage or the equivalent of aforementioned treatment steps.

2. The plans and specifications for this proppsed water supply shall be prepared by an engineer who is registered to practice in Wyoming and satisfactory evidence of his registration shall be submitted with the plans and specifications.

RHP:jk

cc: Phil Hughes, District Sanitarian, Rock Springs, Wyoming

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
State Office Building
Cheyenne, Wyoming 82002

PROJECT: Town of Mills 10" and 12" V.C.P. Sanitary Sewer Relocations, Wyoming Blvd. and North Platte Avenue, Mills, Wyoming.

ARCHITECT OR ENGINEER: Worthington, Lenhart and Carpenter, Inc., Casper, Wyoming.

WATER QUALITY DIVISION REFERENCE NUMBER: 74-66

REVIEWING ENGINEER: Robert H. Pinther, P.E.

DATE OF REVIEW: November 14, 1974

ACTION: Construction authorized contingent upon compliance with the comments set forth below.

COMMENTS:

1. Lower the invert elevation at manhole no. 2 to obtain a slope of at least 0.0022 between manholes nos. 2 and 3.

2. The proposed Hillsman lateral 6" V.C.P. sanitary sewer which crosses West Casper Road is shown on the plans with a slope of 0.005 whereas a slope of at least 0.006 is required.

RHP:jk

cc: Nix Anderson, Casper-Natrona County Health Department, Casper, Wyoming.

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
State Office Building
Cheyenne, Wyoming 82002

PROJECT: City of Casper, Water and Sewer Extensions, Eastgate Addition, Casper, Wyoming

ARCHITECT OR ENGINEER: None indicated; Submitted by Casper Board of Public Utilities, Casper, Wyoming

WATER QUALITY DIVISION REFERENCE NUMBER: 74-57

REVIEWING ENGINEER: Robert H. Finther, P.E.

DATE OF REVIEW: November 21, 1974

ACTION: Construction is not authorized pending receipt of compliance with the comments set forth below.

COMMENTS:

1. At the following locations (and at any other applicable locations) provide the protection at water and sewer main crossings as set forth in Section "8.4.3 Crossing's of the enclosure entitled "Part 8 - Distribution Systems":

   a. Intersection of Bretton Drive and Sussex
   b. Intersection of Bretton Drive and the Bretton Lateral 18" R.C.P. Storm.

2. Specify that the disinfection of the water mains will be accomplished in conformance with AWWA Standard C601-68 entitled "Disinfecting Water Mains", copy enclosed.

3. To facilitate our review of future plans, please submit an addendum pertaining to the above comments for incorporation in your standard water and/or sewer construction specifications on file in this office.

RHP:bb
11-22-74

Enclosures: 2

cc: Nix Anderson, Casper-Natrona County Health Department, Casper, Wyoming

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
State Office Building
Cheyenne, Wyoming 82002

PROJECT: Manchester Packing Company, Lagoon Layout, Manchester, Wyoming

ARCHITECT OR ENGINEER: Storch Corp. 1220 S. W. Morrison Suite 300, Portland, Oregon 97205 Phone (503) 224-3144

WATER QUALITY DIVISION REFERENCE NUMBER: 74-68

REVIEWING ENGINEER: Roy E. Prior, PE, and Paul C. Schwieger, P.E.

DATE OF REVIEW: October 28, 1974

ACTION: Authorized for construction contingent upon comments below.

COMMENTS:

Due to the high ground water in the area of the #2 Lagoon, one of the three suggestions below must be implemented into the plans for construction. These suggestions are as follows:

1. The bottom of the #2 Lagoon should be a minimum of 4 feet above the ground water.

2. The #2 Lagoon should have the side slopes and bottom lined.

3. Chlorination should be provided between #1 and #2 Lagoons.

REP-PCS:bb
10-29-74

cc: Husman Inc., P. O. Box 6127, Sheridan, Wyoming 82801

NOTE: Contractor requested one copy of plans, if another copy of approved plans is needed, please send another copy to be marked and returned.

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
State Office Building
Cheyenne, Wyoming 82002

PROJECT: North Big Horn County Proposed Sanitary Landfill, Big Horn County, Wyoming

ARCHITECT OR ENGINEER: John W. Donnell, Consulting Engineer, P. O. Box 13, Worland, Wyoming 82401

WATER QUALITY DIVISION REFERENCE NUMBER: 74-69

REVIEWING ENGINEER: Robert H. Pinther, P.E. Robert H. Pinther

DATE OF REVIEW: November 25, 1974

ACTION: Reviewed for compliance with acceptable Sanitary Engineering Standards. Please submit revisions to the plans and/or addenda to obtain conformance with the comments set forth below.

COMMENTS:

1. Show the proposed trenching plan in areas other than the draw along with cross sections showing the number of lifts and both the original ground level and the proposed fill elevations. Show grades for proper drainage of each lift.

2. Specify type and amount of landfill construction equipment provided.

3. Indicate persons responsible for actual operation and maintenance of the site.

4. Provide employee sanitary toilet facility.

5. Provision of an equipment shelter for maintenance and storage of parts, equipment, and tools is recommended.

6. Specify that operational records shall be maintained daily. The records shall include: a) portions of the landfill in use, b) date, location, and dimensions of each completed lift, each completed trench, and each completed special refuse disposal area, and c) any deviations from the original plan of operation.

7. Specify and provide copies for operation and supervising personnel of the "Management Plan" and the "Plans for Development, Use, and Maintenance of Sanitary Landfill" to be used at this facility.

RHP:jk
11-27-74
cc: Big Horn County Commissioners, c/o Ray Webber, Frannie, Wyoming
Town of Lovell, Lovell, Wyoming

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
State Office Building
Cheyenne, Wyoming 82002

PROJECT: Texasgulf Inc., P. O. Box 100, Granger, Wyoming 82934, Sewage System for 325 Employees

ARCHITECT OR ENGINEER: Arthur G. McKee & Co., San Mateo, California

WATER QUALITY DIVISION REFERENCE NUMBER: 74-70

REVIEWING ENGINEER: Paul C. Schwieger, P.E.

DATE OF REVIEW: November 25, 1974

ACTION: Authorized for construction contingent upon comments below.

COMMENTS:

1. An annual pan evaporation value of 3' per year will be required for this system to operate without discharging.

2. A state permit will be required should the evaporation pond discharge in the future.

3. These drawings must be adhered to in the actual construction of the system.

4. Additional authorization will be required prior to expanding the facilities shown on these drawings.

PCS:jk
11-27-74

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
State Office Building
Cheyenne, Wyoming 82002

PROJECT: Casper Board of Public Utilities, Manor Heights Addition "Proposed" Sanitary Sewer Plan, Casper, Wyoming

ARCHITECT OR ENGINEER: G & S Engineering Co., Inc., 136 So. Wolcott, Casper, "Submitted by" Mr. Roel K. Stratton, Casper Board of Public Utilities, Casper.

WATER QUALITY DIVISION REFERENCE NUMBER: 74-71

REVIEWING ENGINEER: Robert H. Pinther, P.E.

DATE OF REVIEW: November 26, 1974

ACTION: Construction NOT authorized pending satisfactory compliance with the comments set forth below.

COMMENTS:

1. All manholes shall have a minimum diameter of 42 inches.

2. Provide a manhole at all changes in sewer slope.
   Note: A manhole is not provided at invert elevation 5301.00 where the sewer slope changes from 6.875% to 2.05%.

3. The distances between manholes on the plot plan, in one instance, does not correspond to the distance between manholes on the profile.

RHP:jk
11-27-74

cc: Roel K. Stratton, Superintendent, Casper Board of Public Utilities, Casper.

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
State Office Building
Cheyenne, Wyoming 82002

PROJECT: Casper Board of Public Utilities, Manor Heights Addition "Proposed Sanitary Sewer Plan", Casper, Wyoming

ARCHITECT OR ENGINEER: None Indicated

WATER QUALITY DIVISION REFERENCE NUMBER: 74-713

REVIEWING ENGINEER: Robert H. Pinther, P.E.

DATE OF REVIEW: February 12, 1975

ACTION: Construction Authorized

COMMENTS:

Mr. Roel Stratton, Superintendent of the Casper Board of Public Utilities indicated by phone on February 12, 1975 that these revised plans were prepared by G. & S. Engineering Co., Inc. of Casper.

RHP:jk
2/12/75

Book

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
State Office Building
Cheyenne, Wyoming 82002

PROJECT: Wyoming State Highway Department, Wyoming Information Center at Cheyenne, Water and Sewer Systems, College Drive and I-25, Cheyenne, Wyoming

ARCHITECT OR ENGINEER: Morris D. Kemper and Associates, 2002 Dillon Ave., Cheyenne, Wyoming 82001

WATER QUALITY DIVISION REFERENCE NUMBER: 74-72

REVIEWING ENGINEER: Frank E. Mauna, P.E.

DATE OF REVIEW: November 15, 1974

ACTION: Authorized for construction with comments.

COMMENTS:

The design features for both the water supply and sewage treatment plant are satisfactory. However, the sewage treatment plant is a somewhat sophisticated one and needs good operation and maintenance to perform efficiently. A manufacturers representative should be on hand at the start up procedures and at a later date when the sewage treatment plant is functioning to see that it is operating satisfactorily.

The plant operator shall also be provided with a good Operation and Maintenance Manual to go by. A copy of this manual should be made available to this Department also.

FEM:bb
11-19-74

cc: Don Pack, City County Sanitarian, Cheyenne, Wyoming

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
State Office Building
Cheyenne, Wyoming 82002

PROJECT: Utah Power & Light Co., Naughton Station Units 4 & 5

ARCHITECT OR ENGINEER: T. C. Elwell, Stearns-Rogers Inc., 700 So. Ash, P. O. Box 5888, Denver, Colorado 80217.

WATER QUALITY DIVISION REFERENCE NUMBER: 74-73

REVIEWING ENGINEER: William L. Garland, P.E.

DATE OF REVIEW: December 30, 1974

ACTION: Not authorized for construction. See comments.

COMMENTS:

Authorization for construction pends compliance with the following comment:

1. In order to give "Authorization for Construction" of a project, a complete set of plans and specifications are required, including all applicable detail sheets. I'm sure you are aware of these requirements, as indicated in your cover letter. For an official approval these conditions must be complied with. We have reviewed your preliminary plans with the above in mind, and feel that the facility would be adequate for the type of service provided and the number of personnel to be served. This decision is based partially on the fact that there will be no discharge to receiving waters of the State. If, during the design phase of this project, the necessity to discharge occurs, a more detailed review will be in order. This would occur upon receipt of a complete design package.

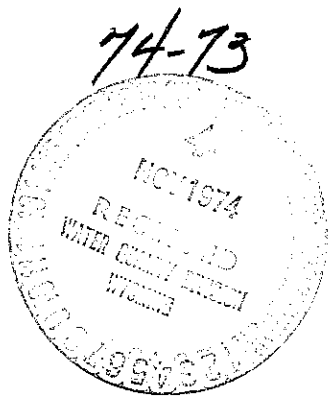
WLG:jk
12/31/74

cc: Phillip Hughes, Western Regional Supervisor, P. O. Box 747, Rock Springs.

Stearns-Roger
INCORPORATED

ENGINEERING · CONSTRUCTION

74-73



November 19, 1974

Mr. E. A. Williamson
State Water Quality
State Office Building West
Cheyenne, Wyoming 82002

Reference: Utah Power and Light
Naughton Station - Units 4 & 5
Stearns-Roger Project C14600

Subject: Specification D9, Sewage Treatment Plant for
Naughton Station at Kemmerer, Wyoming

Dear Mr. Williamson:

Enclosed are five (5) copies of the "Sewage Treatment Plant" Specification D9 for Utah Power and Light Company's Naughton Station. Please return three signed copies of the specification with your comments and/or approval.

We realize that in order to approve and issue a construction permit for the sewage treatment facility, you require complete details of the entire system including disposal ponds and geological features of the subsurface. This information will be submitted for your approval in the near future when it becomes available.

The purpose of submitting the treatment plant separately is to allow sufficient time to incorporate any design changes which may be required. We would appreciate receiving your comments in 30 days or sooner.

If you have any questions or require additional information, please contact the writer.

Very truly yours,

STEARNS-ROGER INCORPORATED

T. C. Elwell

T. C. Elwell
Assistant Project Engineer

TCE/AJ/bjs
Attachments
cc: J. C. Conder
DMM/HLD/JHJ/Gen File
JJD
TCE

RAB/AJ
JHB/CE File
R. G. Bosen

74-73

Stearns-Roger

UTAH POWER AND LIGHT COMPANY
NAUGHTON 4 & 5
KEMMERER, WYOMING

DOMESTIC WASTE TREATMENT
AND
DISPOSAL

"DESIGN OUTLINE"

The proposed domestic sewage treatment plant will handle the combined domestic waste produced by the construction personnel associated with building the power plant and the plant operators. This treatment facility will normally discharge to the cooling tower system or to an evaporation pond through a holding basin waste sump in emergency operating conditions. In the first normal operating condition, the discharge water will serve as part of the make up water requirement to the cooling tower system and in the second emergency operating condition, it will be completely wasted through evaporation in the evaporation pond. In this respect, the discharge to environment from this treatment facility will be zero. The treatment facility and all the above mentioned equipment will be located on the Utah Power and Light Company's property near Kemmerer, Wyoming.

An extended aeration process, package type plant, discharge into an evaporation pond has been selected. The proposed treatment plant has been designed for a peak loading of 875 men. This figure will include 80 plant operators and 795 construction personnel. Shower facilities will be provided for plant operators only.

The treatment plant is designed to treat 18,000 GPD* containing a daily 5 day BOD loading of 35.5 pounds*, and has a settling tank capable of holding a maximum flow of 4500 GPH.

After the construction period the treatment plant capacity will be mechanically reduced to 9,000 GPD to treat domestic waste produced by 80 operating personnel.

The aeration equipment includes a backup blower; each blower is capable of supplying 150% of the air required. The design sludge recirculation rate (from settling tank back to the aeration tank) allows up to 150% of the maximum flow to be recirculated. The chlorination equipment has reserve capacity and will provide a 1 ppm chlorine residual in the treatment plant effluent.

A sludge drying bed (20' x 20' x 2') designed according to "Recommended Standards for Sewage Works" (Ten State Standard) will be utilized as needed.

*Calculations based on: Construction personnel 20 GPD and .04 lbs. of 5 day BOD per man per day; operating personnel 35 GPD and .06 lbs. of 5 day BOD per man per day.

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
State Office Building
Cheyenne, Wyoming 82002

PROJECT: Town of Torrington - 15" V.C.P. Sewer Trunk Line for new subdivision in east Torrington, Torrington, Wyoming

ARCHITECT OR ENGINEER: Donald Horton, P. O. Box 147, Torrington, Wyo 82240

WATER QUALITY DIVISION REFERENCE NUMBER: 74-74

REVIEWING ENGINEER: Frank R. Harman, P.E.

DATE OF REVIEW: November 25, 1974

ACTION: AUTHORIZED FOR CONSTRUCTION

COMMENTS:

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
State Office Building
Cheyenne, Wyoming 82002

PROJECT: Town of Lovell Sewer Extension on Carmon Avenue for Rose City West Retirement Home, Lovell, Wyoming.

ARCHITECT OR ENGINEER: Richard L. Tyrick, P. O. Box 535, Powell, Wyoming 82435.

WATER QUALITY DIVISION REFERENCE NUMBER: 74-76

REVIEWING ENGINEER: Robert H. Finther, P.E.

DATE OF REVIEW: December 11, 1974

ACTION: Construction authorized with comments

COMMENTS:

1. The minimum diameter of the manholes shall be 42 inches.

2. Sufficient room should be left in the right-of-ways so that the water main can be located a minimum horizontal distance of 10 feet from the sewer main.

3. As per our phone conversation of December 2, 1974 with the engineer, it is understood that there will not be any locations where the water and sewer mains cross.

RHP:jk
12-12-74

Enclosures: 1 copy of the plans and specifications

Kennecott Energy Company
505 South Gillette Avenue
Caller Box 3009
Gillette, Wyoming 82717-3009
(307) 687-6000 Fax: (307) 687-6015

Patti
Please file this with
these permits.
GB

Kennecott Energy

July 24, 1998

Mr. Gary Beach
WDEQ - Water Quality Division Administrator
Herschler Building - 122 West 25th Street
Cheyenne, WY 82002

Re: Notification of Corporate Changes; Jacobs Ranch Mine Facility

Dear Mr. Beach:

Kennecott Energy and Coal Company (KECC) has purchased from Kerr-McGee Corporation all of the stock in Kerr-McGee Coal Corporation (KMCC), a Delaware corporation. The close of the purchase and sales agreement occurred on July 23. KMCC owns and operates the Jacobs Ranch Mine.

This transaction represents a pure stock transfer, with continuation of the existing Delaware corporation. The transaction involves neither new or changed stock, nor any corporate reorganization of stock. However, to meet requirements of the agreement, KECC changed the name from Kerr-McGee Coal Corporation to Jacobs Ranch Coal Company immediately upon close of the transaction yesterday. The original corporation will be maintained, but under the new name and different management personnel. The facility name of Jacobs Ranch Mine will remain unchanged.

This document serves as formal notification of the change in name relative to the Jacobs Ranch Mine Stormwater Pollution Prevention Plan, Permits WY-0023531, WYR000096, 74-77, 77-349R, and 78-552. All applicable permit requirements and commitments remain unchanged, and will continue to be met by the facility under Jacobs Ranch Coal Company.

If I can provide any additional information, please contact me at (307) 687-6061 or at the letterhead address.

Sincerely,

Bob Green
Environmental Manager

RECEIVED
JUL 28 1998
WATER QUALITY DIVISION
WYOMING

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
State Office Building
Cheyenne, Wyoming 82002

PROJECT: Kerr-McGee Coal Corp. - Jacobs Ranch Mine Sewage System, Campbell County, Wyoming.

ARCHITECT OR ENGINEER: Kerr-McGee Corp., McGee Tower 2202, Oklahoma City, Oklahoma 73125.

WATER QUALITY DIVISION REFERENCE NUMBER: 74-77

REVIEWING ENGINEER: Roy W. Prior, E.I.T., and Paul C. Schwieger, P.E.

DATE OF REVIEW: December 13, 1974

ACTION: Authorization to construct

COMMENTS:

Enclosures

REP:PCS:jk
12-16-74

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
State Office Building
Cheyenne, Wyoming 82002

PROJECT: City of Buffalo - Sewer Extension from High School to Dixon Addition, Buffalo, Wyoming.

ARCHITECT OR ENGINEER: None indicated; submitted by Mr. Bill Hopkins, City Building Inspector, P. O. Box 430, Buffalo, Wyoming 82834.

WATER QUALITY DIVISION REFERENCE NUMBER: 74-78

REVIEWING ENGINEER: Frank E. Harman, P.E.

DATE OF REVIEW: January 3, 1975

ACTION: Authorized for construction.

COMMENTS:

FEH:jk
1-6-75

cc: Malcolm Crawford, District Sanitarian, Gillette.

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
State Office Building
Cheyenne, Wyoming 82002

PROJECT: Bridger Forest Ranches, Lincoln Co.

ARCHITECT OR ENGINEER: Bush & Gudgell, Inc., Salt Lake City, Utah

WATER QUALITY DIVISION REFERENCE NUMBER: 74-79

REVIEWING ENGINEER: William L. Garland, P.E. WLG

DATE OF REVIEW: February 5, 1975

ACTION: Authorized for Construction with comments.

COMMENTS:

Due to the large number of lots in the subdivision, special consideration should be given to the types, and quality of well construction to ensure a safe source. Also, selection of the proper location of the septic tanks will tend to minimize contamination of water supplies.

cc: Glenn Payne, Lincoln Co. Planner, Kemmerer.
Phillip Hughes, District Sanitarian, Rock Springs.

REVIEW OF PLANS AND SPECIFICATIONS

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION
State Office Building
Cheyenne, Wyoming 82002

PROJECT: Happy Valley Estates Subdivision, Second Plat, Lincoln Co.

ARCHITECT OR ENGINEER: James W. McJunkin, P.E. #652

WATER QUALITY DIVISION REFERENCE NUMBER: 74-80

REVIEWING ENGINEER: William L. Garland, P.E. WLG

DATE OF REVIEW: February 4, 1975

ACTION: Unauthorized for construction. See Comments.

COMMENTS:

This project is not authorized for construction due to the lack of sufficient data necessary to make a cursory evaluation of the project. In preparing plans and specifications on water and wastewater facilities to be submitted for approval, such items as plan and profile sheets and detail sheets should be included. A complete set of specifications outlining material types, sizes, methods of disinfection (post-construction disinfection of distribution system) and etc, should accompany the plans. "Recommended Standards for Water Works and Sewage Works" provides an excellent guideline to follow, since our reviews will follow basically their format.

WLG:jk
2/5/75
cc: Glenn Payne, Lincoln Co. Planner.
Phillip Hughes, District Sanitarian, Rock Springs.